

State of Technology in Iowa

Iowa Department of Education

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Background

Iowa School Improvement Efforts

- Emphasizes local control and local standards.
 - Uses comprehensive school improvement plans (CSIPs) as structure to
 - Support local priorities;
 - Meet chapter 12 expectations; and
 - Incorporate NCLB requirements.
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Background

- Local CSIPs include provisions for:
 - School and district goals;
 - Student and staff needs based on data;
 - Actions to support students needs;
 - The use of scientifically-based research (SBR) to support curriculum and instructional practices; and
 - Professional development and technology efforts
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Recent Technology Enhancements to CSIPs

- specific goals for using advanced technology
 - evidence that technology is integrated into the curricula and instructional practices.
 - evidence that the district provides on-going, sustained professional development
 - evidence of professional development for the effective use of technology
 - evidence that the district evaluates the effectiveness of its educational technology plan.
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IDOE - Technology efforts - Phase I & II

- Two-step process to study current state of technology in Iowa.
 - Phase I was initiated by the State Board of Education – year long study of educational technology policy
 - Phase II includes additional study and data collection on the current state of technology in Iowa.
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Phase I: Technology Advisory Committee – 03-04

- Phase I: State Board re-convened technology advisory committee during 03-04.
 - Purpose: To review and make recommendations on statewide policies regarding technology efforts.
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Guiding Principles – Tech. Advisory Committee

1. Leadership
 2. Quality Teaching
 3. Professional Development
 4. Curriculum/Assessment
 5. Equitable Access
 6. Educational Technology Planning
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Phase II: Additional Study - 2004-05

- Focus on the collection and analysis of data to determine the current status of educational technology in Iowa (Jan 05)
 - Review of literature (Jan 05)
 - Data collection on specific questions (June 05)
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Phase II: Categories of information collection

- Data collection from schools on current state of:
 - Infrastructure
 - Costs
 - Local Funding
 - Student Access – school and home
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Phase II: Categories of information collection

- Data on integration of technology into teaching and learning process including:
 - Use of Iowa Teaching Standards and Criteria
 - Core curricula adjustments to address 21st Century Workforce skills.



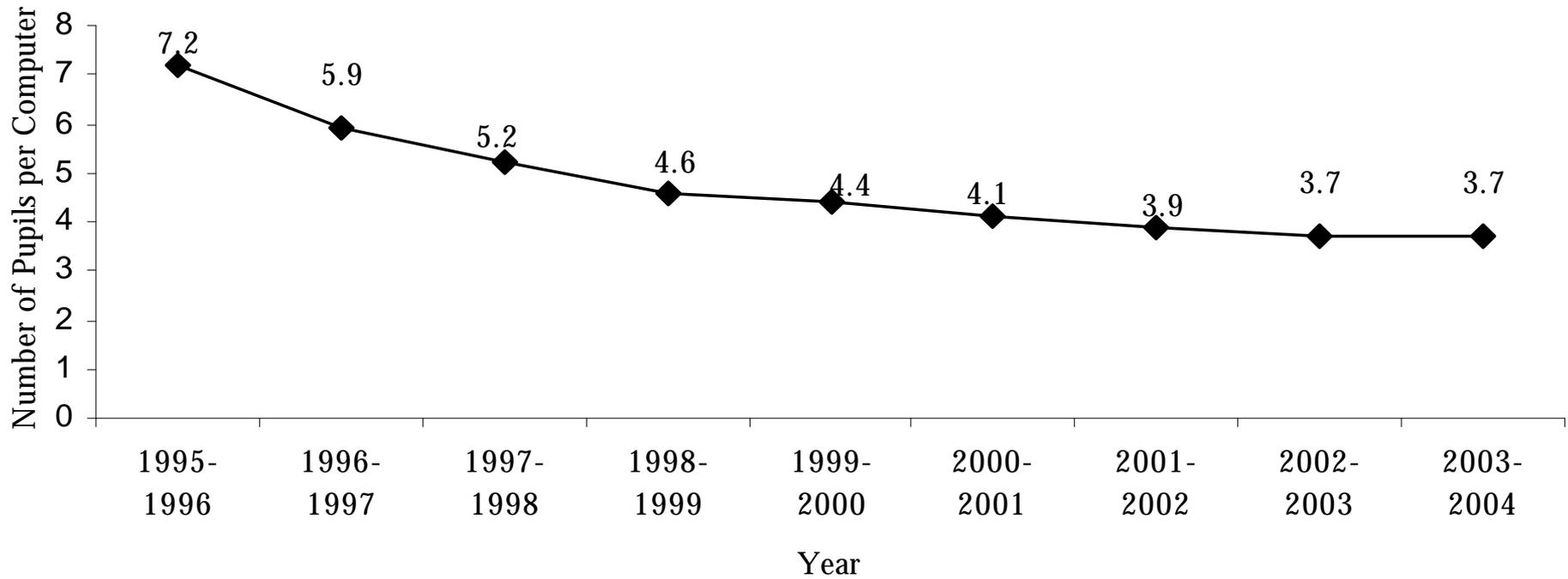


Phase II: Categories of information collection

- Information on district supports for the improvement of instructional practices through the use of technology and professional development
 - Information on how districts are evaluating the effect of technology integration on student learning.
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Current Information

Pupils Per Computer in Iowa Public Schools 1995-1996 to 2003-2004



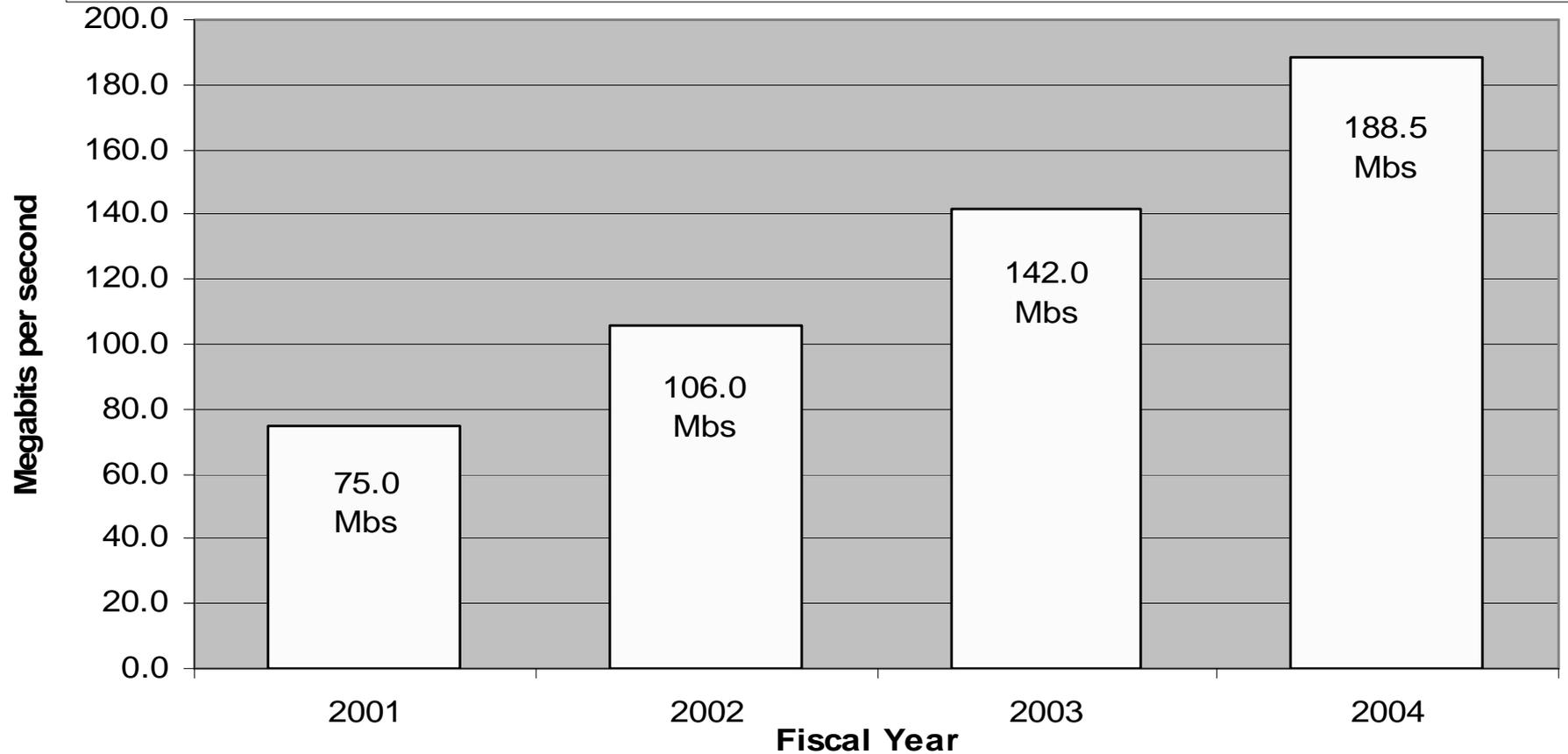


Type of internet connection to school buildings (1,501)

Over 90% of school buildings in Iowa have high speed Internet access.



Usage Measured by demand





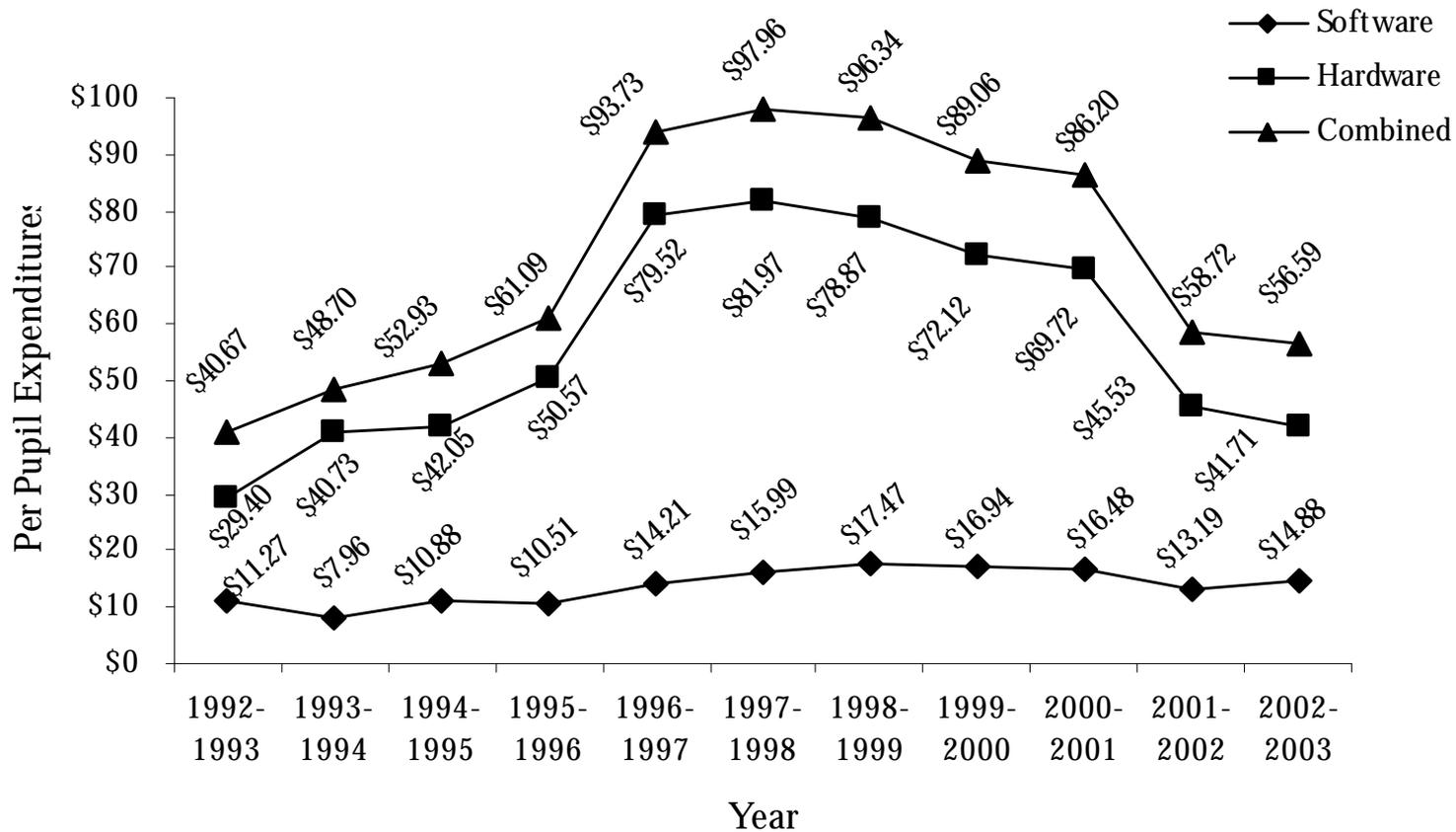
Buildings with access to a wireless network (1501)

yes
732
48.77%
NO
769
51.23%



Funding and Expenditures

District Technology Spending: 1992 to Present





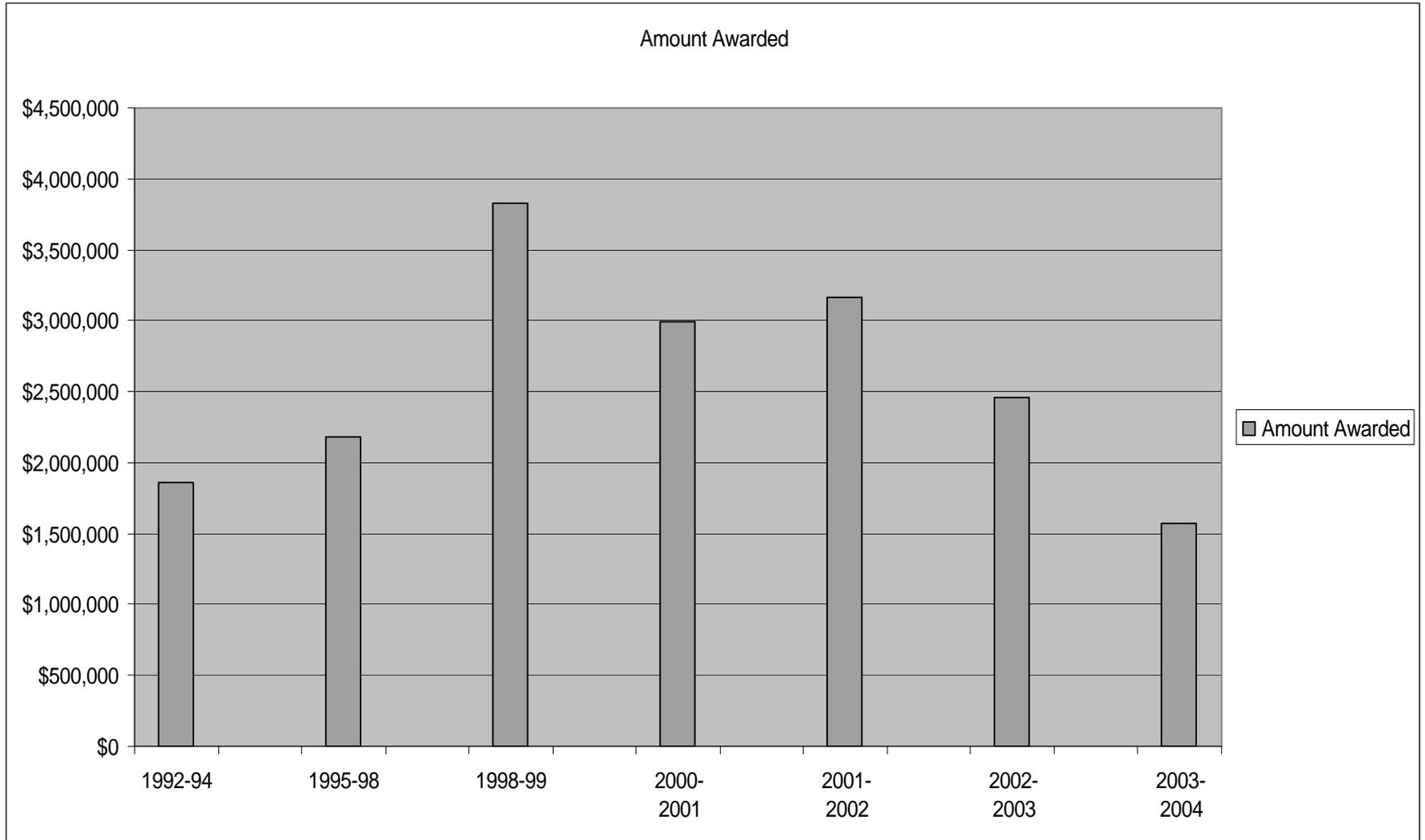
State Funding

- Technology Funding began in 1996-97
- \$30,000,000 per year FY97-FY01.
- \$10,000,000 in FY02
- \$1,500,000 for non-public schools in each year FY01 and FY02

Total FY97-FY02: \$163,000,000



Federal Star School Program

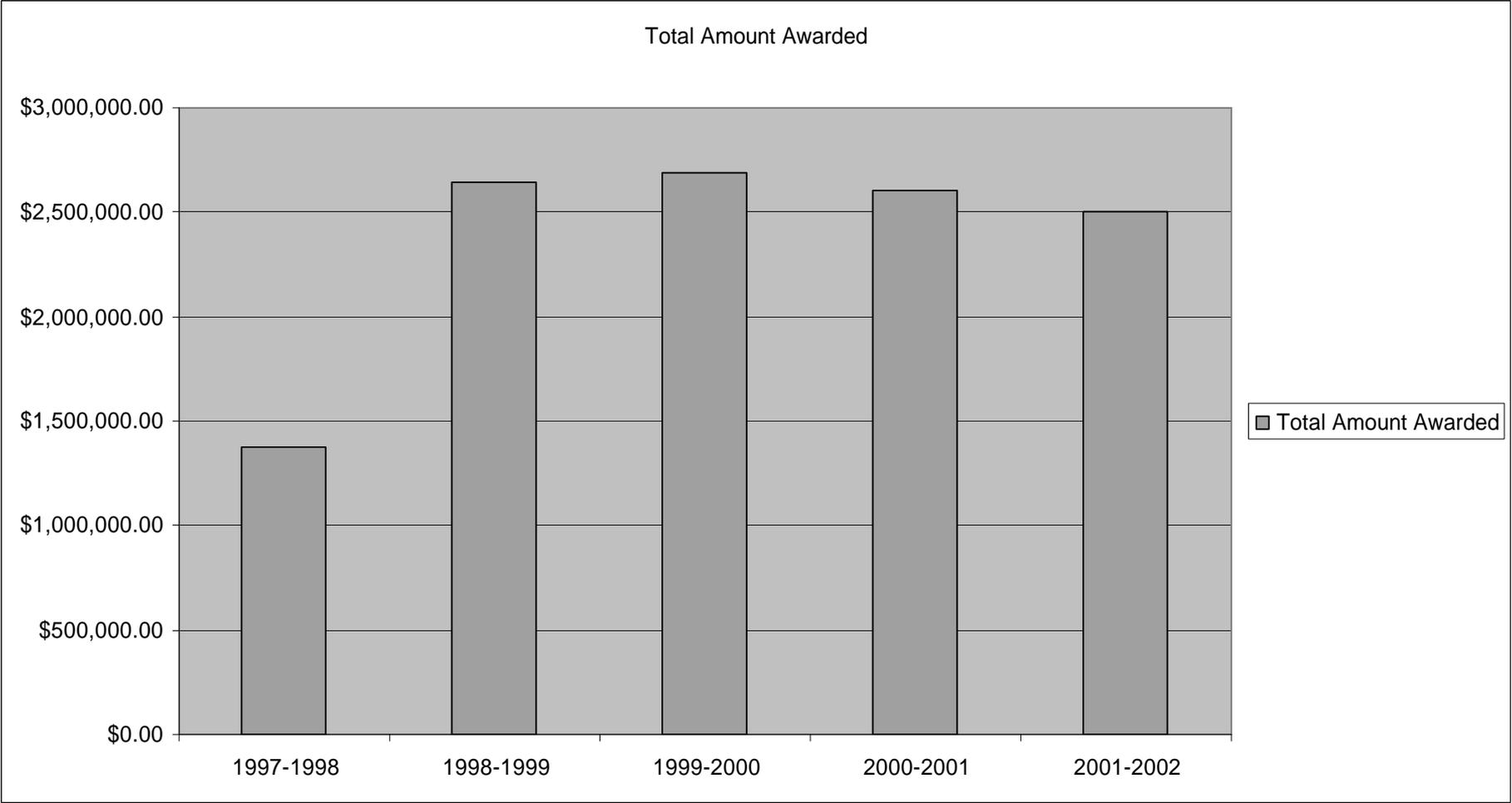




Federal Star School Program - most requested categories of expenditures:

- Computers
 - Video Production/Communication
 - ICN classrooms
 - Traditional (wire based) LAN/WAN
 - Wireless LAN
 - Staff Development
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Federal Technology Literacy Challenge Fund (TLCF) 1997 - 2002

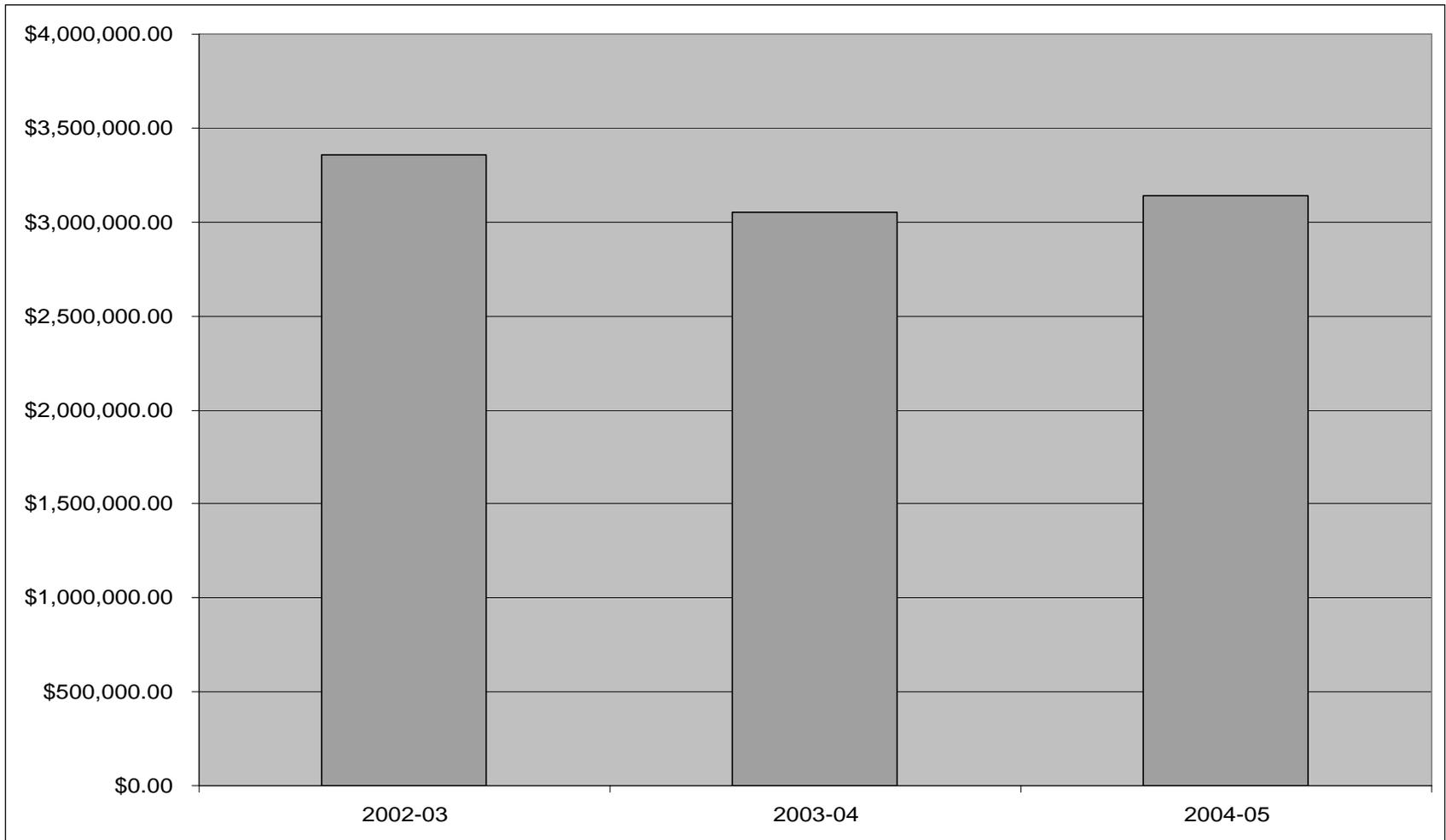




TLCF primary funding requests - 1996 - 2001

- Laptops and desktop computers
 - Software
 - Peripherals (e.g. printers, flex cams digital cameras, etc)
 - Network hardware (e.g. servers, routers, etc.)
 - Other e-technology (e.g. Alpha smarts, multi-media projectors etc)
 - Staff Development
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Federal Enhancing Education Through Technology (E2T2) 2002-present





Federal Enhancing Education Through Technology (E2T2) 2002-present

2002-2003 \$3,360,644.25

2003-2004 \$3,054,238.61

2004-2005 \$3,138,092.60

Grant range: \$329.18 to \$178,570.72

(307 school districts receive less than \$5,000 – lead to the formation of consortia to create grants of sufficient size and scope – part of Iowa’s consolidated application)





Usage of E2T2 Funds

- Professional Development on strategies to improve teaching in Math and reading in the middle school
 - Technology to support the fidelity of implementation of the teaching strategies e.g. IP video conferencing
 - Technology to create e-learning communities of teachers to increase understanding of the teaching strategies and breakdown teacher isolation. e.g., ICN, web discussions, etc.
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Evaluating State Educational Technology Programs (ESETP)

Grant Funding	Year 1	Year 2	Year 3
	\$642,500	\$649,271	\$649,271
Total funding:		\$1,941,042	
Funding for AEAs and LEAs:		\$1,600,000	





Additional expenditures that support LEA utilization of technology

- State level activities
 - DDL – every administrator that participated received a \$900 credit to buy technology through the IEC from a specific list of items. E.g. Laptops, PDA, etc.
 - Iowa On-Line Learning effort
 - AEA support of online activities putting technology into the hands of both teachers and students (EBSCO, etc.)
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Instructional Technology in Iowa School Districts

An AEA Perspective



Loess Hills AEA 13

- 31 public school districts
 - 33,000 students
 - 3,000 educators
 - Located in Council Bluffs
 - 7 regional offices: Atlantic, Harlan, Glenwood, Manawa (CB), Peterson (CB), Shenandoah
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Evolution from Gadgets to Instructional Tools

- Technology began to make it's way into schools and classrooms in the early 1990's.
 - The thinking in education at that time was that technology was good and that schools should have some
 - There was little evidence to connect it to changes in instruction or to student achievement
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Evolution...

- Over time, educators have come to realize the potential of technology to impact teaching and learning.
 - Technology is viewed as essential in creating learning environments, opportunities and supports that stimulate student curiosity, interests, and learning.
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Evolution...

- Teachers are not only learning how to use the technology itself, but how to integrate it effectively to improve learning
 - Districts have integrated technology goals, implementation and evaluation into their Comprehensive School Improvement Plans
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Technology Plans

State and Federal

- Iowa Technology Plan - As a result of federal requirements, Iowa has a strategic plan for technology. The DE will revise this based on federal requirements and the content of the National Technology Plan
 - National Technology Plan - Being revised by now and will be released in December or January.
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Challenges to LEAs

- **The challenges of adequate instructional technology are huge:**
 - Software issues (upgrades and compatibility)
 - Professional development to improve instructional use
 - Equity issues regarding access
 - Staffing to support instruction
 - Staffing to support infrastructure and technical issues
 - Financial resources to adequately fund all of the above





Challenges to LEAs

- A critical need is technical support
 - Updating and maintaining equipment
 - Maintaining networks
 - Predictability and reliability
 - Compatibility of equipment and software
 - Security issues
 - Storage and back up of documents
 - Email accounts
 - Internet connections—last mile maintenance





AEA Supports to Local Districts

- Deliver and support high quality, ongoing professional development
 - Act in a consulting capacity to districts in planning and implementation of instructional technology
 - Directly support grants such as E2T2, Star Schools and other federal grants.
 - Provide support for state initiatives such as Project Easier
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AEA Supports...

- Provide 24/7 access to 5 online databases (EBSCO, Worldbook, Atomic Learning, Clipart.com, AP Photo multimedia archive) and UnitedStreaming videos
 - Act as an access point to districts for internet and filtering services to districts that request it.
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AEA 13 Financial Support for Local District Internet

● 1995	\$30,723
● 1996	\$18,953.
● 1997	\$18,953
● 1998	\$18,953
● 1999	\$12,720
● 2000	\$11,660
● 2001	\$53,519
● 2002	\$28,602
● 2003	\$31,002
● 2004	\$31,002
Total	\$256,087





Professional Development

- Virtually all new statewide initiatives, including technology-related initiatives, involve professional development delivered and supported by the AEA.
 - That support takes many forms including consultants collaborating onsite with teachers as they plan and implement new instructional strategies.
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